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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,557	04/27/2006	Christian Milo	112701-719	2772
29157	7590	11/16/2009	EXAMINER	
K&L Gates LLP			STULII, VERA	
P.O. Box 1135				
CHICAGO, IL 60690			ART UNIT	PAPER NUMBER
			1794	
			NOTIFICATION DATE	DELIVERY MODE
			11/16/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,557	<b>Applicant(s)</b> MILO ET AL.	
	<b>Examiner</b> VERA STULII	<b>Art Unit</b> 1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2006</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 are rendered indefinite for the recitation of the phrase “beverage base”. The meaning of the term "base" is not clear. It is not clear whether the beverage base stands for the major component by amount, main flavor/aroma/color imparting component, or there is some other interpretation.

Claims 1, 13 and 14 are rendered indefinite for the recitation of the phrase “substantially non-alcoholic”. The term "substantially non-alcoholic" in claims 1 and 13 is a relative term which renders the claim indefinite. The term "substantially non-alcoholic" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear what is the standard of comparison for determining whether the beverage is “substantially non-alcoholic”.

Claims 1 and 13 are rendered indefinite for the recitation of the phrase “modulated coffee aroma”. It is not clear what “modulated” stands for. If the meaning of the term is “modified”, then it is not clear in what way aroma is being modified.

Claims 1, 13 and 14 are rendered indefinite for the recitation of the phrase “fermented coffee component comprising coffee aroma”. Claim 2 is rendered indefinite for the recitation of the phrase “coffee component is selected from the group consisting of coffee extract, coffee aroma, and coffee extract from which a portion of coffee aroma has been removed”. Claim 3 is rendered indefinite for the recitation of the phrase “distillate of coffee aroma”. Claim 5 is rendered indefinite for the recitation of the phrase “between 0.01% and 2% coffee aroma by weight”. Claim 18 is rendered indefinite for the recitation of the phrase “fermentation of the coffee aroma”. Aroma is an organoleptic characteristic of the food material associated with human sense of smell. Aroma is not a physical component, and it is not clear how aroma could be the part of a physical component and measured by weight.

Claim 6 is rendered indefinite for the recitation of the phrase “[a] beverage base according to claim 1 wherein the beverage base is fermented”. It is not clear what is being fermented coffee base or coffee extract. It appeared from claim 1, that coffee base contains fermented coffee extract, but does not undergo fermentation itself.

Claim 7 is rendered indefinite for the recitation of the phrase “an increased level of acetic acid resulting from fermentation”. The term “an increased level” in claim 7 is a relative term which renders the claim indefinite. The term “an increased level” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 8 is rendered indefinite for the recitation of the phrase “artificial fermented coffee aroma component”. It is not clear what exactly encompassed by this term. It is not clear whether the aroma is a result of coffee fermentation or not. It is not clear in what way the aroma is artificial (natural aroma that is not obtained by fermentation of coffee, artificially synthesized aroma, some other interpretation).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 4, 6, 7, 9-11 and 13-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood et al (EP 0791296).**

In regard to claims 1, 6, 13 and 14, Wood et al disclose a process for providing a coffee beverage base by providing a coffee component comprising coffee aroma (Abstract; Col. 1 lines 36-37; Col. 5 Example 5), providing a micro-organism with an ability to ferment and inoculating the coffee component with the micro-organism, (Abstract; Col. 1 lines 40-41; Col. 2 lines 10-38; Col. 5 Example 5), and subjecting the incubated coffee component to fermentation at a temperature below 22°C to generate a fermented coffee component that has a fruity note due the fermentation of the coffee aroma, while controlling the fermentation conditions to substantially prevent the generation of alcohol and provide a substantially non-alcoholic coffee beverage base (Abstract; Col 1 lines 40-41; Col. 2 lines 39-46; Col. 3 lines 1-13; Col. 5 Example 5). In regard to the temperature recitation, Wood et al discloses fermentation at 20-32°C (Col. 3 line 1). In

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regard to the “controlling the fermentation conditions to substantially prevent the generation of alcohol and provide a substantially non-alcoholic coffee beverage base” recitation, Wood et al also discloses that the temperature of the fermentation media is reduced before inoculation with microorganisms in order to reduce production of alcohol (Col. 3 lines 5-8). Wood et al further discloses that the fermentation temperature may be further reduced to 0-12° C in order to reduce formation of alcohol due to the fermentation with yeast (Col. 3 lines 9-13). Wood et al discloses generation of fruity note due to the fermentation of the coffee component with micro-organism (Example 5 Col. 5 line 52). Wood et al discloses substantially non-alcoholic beverage (i.e. containing only traces of alcohol) (Example 5 Col. 5 lines 54-55).

In regard to claim 2, Wood et al discloses coffee extract (Abstract; Col. 1 line 36-37; Col. 5 Example 5).

In regard to claim 4, Wood et al discloses 1% of instant coffee (Col. 5 Example 5).

In regard to claim 7, Wood et al discloses that the fermentation temperature may be further reduced to 0-12° C in order to reduce development of acidity due to the fermentation with bacterial culture (Col. 3 lines 9-13).

In regard to claim 15, Wood et al disclose supplementing the coffee component with carbohydrate effective to enhance the fermentation process (sugar) (Abstract; Col. 1 line 38, Col. 2 lines 6-8; Col. 5 lines 35-36).

In regard to claims 16 and 20, Wood et al disclose the fermentation temperature between 8 and 22 ° C (Col. 3 line 1).

In regard to claims 17 and 21, Wood et al disclose the fermentation time between 4 and 6 hours (Col. 3 line 4).

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Regarding the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties recitations in claims 9-11 and 18-19, it is noted that although the references do not specifically disclose every possible quantification or characteristic of its product, such as the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties, these characteristics would have been expected to be as claimed absent any clear and convincing evidence and/or arguments to the contrary. The reference discloses the same starting materials and methods as instantly (both broadly and more specifically) claimed, and thus one of ordinary skill in the art would recognize that the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties, among many other characteristics of the product obtained by referenced method, would have been an inherent result of the process disclosed therein. The Patent Office does not possess the facilities to make and test the referenced method and product obtain by such method, and as reasonable reading of the teachings of the reference has been applied to establish the case of anticipation, the burden thus shifts to applicant to demonstrate otherwise.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 3, 5, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (EP 0791296) in view of Jimenez et al (US 5,736,182).**

In regard to claims 3 and 5, Wood et al is silent as to the “coffee aroma is a distillate of coffee aroma”, amount of coffee aroma. In regard to claim 8, Wood et al is silent as to the artificial fermented coffee aroma component. In regard to claim 12, Wood et al is silent as to beverage base is a beverage concentrate. Jimenez et al discloses:

The coffee aroma components may be recovered at several points during processing of the soluble coffee powder. One commonly applied procedure is to recover coffee aroma components by steam stripping of coffee extract leaving an extraction system. The mixture of steam and coffee aroma components is then condensed to form an aqueous distillate. The aqueous distillate is primarily comprised of water of coffee aroma components and soluble coffee solids. (Col. 1 lines 22-29).

Jimenez et al further discloses freeze concentration of aqueous aroma distillates obtained by steam stripping a coffee extract (Col. 3 lines 15-24). One of ordinary skill in the art would have been motivated to modify Wood et al and to employ concentrated aqueous aroma distillates obtained by steam stripping a coffee extract as a conventional source of coffee component as disclosed by Jimenez et al. One of ordinary skill in the art would have been motivated to do so, in order to obtain highly aromatic coffee component and to increase organoleptic properties of the final beverage. One of ordinary skill in the art would have been motivated to provide fermented coffee beverage in a concentrated form, since production of coffee beverages in a concentrated form was well known in the art as disclosed by Jimenez et al. Since Jimenez et al. discloses



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separation of coffee aroma fraction for further enhancement of the aroma of the final coffee beverage and Wood discloses production of aromatic fermented coffee beverages, one of ordinary skill in the art would have been further motivated to add additional aroma to the coffee beverage (so called "artificial aroma") in order to further increase organoleptic properties of the fermented coffee beverage. One of ordinary skill in the art would have been motivated to do so, since addition of various aromatic substances to beverages in general, including coffee beverages, was a well established practice in the art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERA STULII whose telephone number is (571)272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steve Weinstein/  
Primary Examiner, Art Unit 1794

/Vera Stulii/  
Examiner, Art Unit 1794